Docket No. SA-537
Exhibit No. 14-C

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Human Performance

Excerpts from B777 Flight Crew Operating Manual Describing "AIRSPEED LOW" EICAS Caution Message

777 Flight Crew Operations Manual

Aural	Light	GPWS immediate alert GPWS immediate alert	
Voice annunciation: SINK RATE TERRAIN	GND PROX light		
Voice annunciation: GLIDE SLOPE TOO LOW, FLAPS TOO LOW, GEAR	GND PROX light (Inhibited by pushing the respective GND PROX OVRD switch)		
Altitude voice annunciations	None	Altitude voice annunciations during approach	

Flight Deck Panel Annunciator Lights

Flight deck panel annunciator lights are used with EICAS messages to:

- help locate and identify affected systems and controls
- reduce potential for error

Airspeed Voice Annunciations and Alerts Takeoff V1 Airspeed

The voice annunciation VEE ONE sounds when airspeed reaches V1 during takeoff.

Stall Warning

Warning of an impending stall is provided by left and right stick shakers, which independently vibrate the left and right control columns.

Airspeed Low

The EICAS caution message AIRSPEED LOW is displayed and the box around the current airspeed indication on the PFD is highlighted amber if airspeed is below minimum maneuvering speed.

Overspeed Warning

The EICAS warning message OVERSPEED is displayed if airspeed is greater than VMO/MMO. The message remains displayed until airspeed is reduced below VMO/MMO.



777 Flight Crew Operations Manual

Warning Systems EICAS Messages

Chapter 15 Section 30

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Warning Systems EICAS Alert Messages

Message	Level	Aural	Message Logic
AIRSPEED LOW	Caution	Beeper	Airspeed is below minimum maneuvering speed.
ALTITUDE ALERT	Caution	Beeper	Airplane has deviated from MCP selected altitude.
ALTITUDE CALLOUTS	Advisory		Altitude and minimums voice annunciations during approach are no longer provided.
CONFIG DOORS	Warning	Siren	An entry, forward cargo, or aft cargo door is not closed, latched, and locked when either engine's thrust is in the takeoff range on the ground.
CONFIG FLAPS	Warning	Siren	Flaps or slats are not in a takeoff position when either engine's thrust is in the takeoff range on the ground.
CONFIG GEAR	Warning	Siren	Any landing gear is not down and locked when either thrust lever is closed below 800 feet radio altitude or when flaps are in a landing position.
CONFIG GEAR STEERING	Warning	Siren	Main gear steering is unlocked when either engine's thrust is in the takeoff range on the ground.
CONFIG PARKING BRAKE	Warning	Siren	Parking brake is set when either engine's thrust is in the takeoff range on the ground.
CONFIG RUDDER	Warning	Siren	Rudder trim is not centered when either engine's thrust is in the takeoff range on the ground.